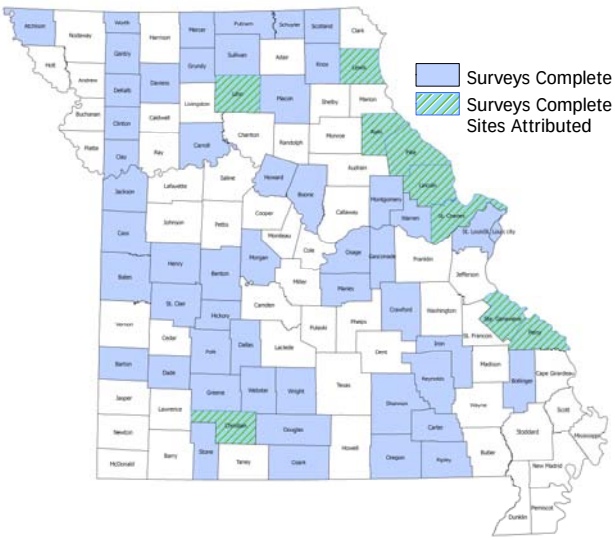
GIS Capture of Missouri Archaeology Surveys and Sites

Melissa M. Lanclos[1], Dr. David Diamond[1], C. Diane True[1], Michael Morey[1], Brad Harris[1], Robert Reeder[2], George Kopp[2], Kerry Nichols[3], and Brant Vollman[3]

[1]Missouri Resource Assessment Partnership (MoRAP) [2]Missouri Department of Transportation (MoDOT) [3]Missouri Department of Natural Resources/State Historic Preservation Office (DNR/SHPO)

This project represents the usability and necessity of a digital representation of archaeological surveys and sites as an aid to cultural resource management and planning.



Surveys vs. Sites

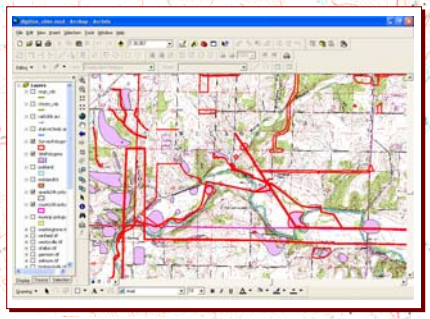
A **survey** is the area that was investigated for the presence of archaeological artifacts

A **site** is the location where archaeological artifacts are found

The Total Number of Sites and Surveys Digitized*:

Total Surveys Captured for the Project: 9,500 polygons
Site Polygons Digitized but not Attributed this Period: 6,000 polygons
Sites Digitized and Attributed This Period: 2,100 polygons
Total Sites Captured for the Project: 11,000 (2,100 of which are fully attributed)

*As of June 30, 2005



Example of the Archaeology Geodatabase

The data is stored and managed in a geodatabase using a spatial database engine (SDE) on a structured query language (SQL) server. Relationship classes are used to relate (link) tables using a common identifier

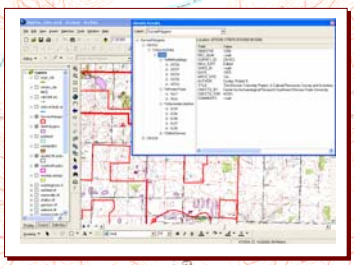
Red polygons are surveys

Purple polygons are sites

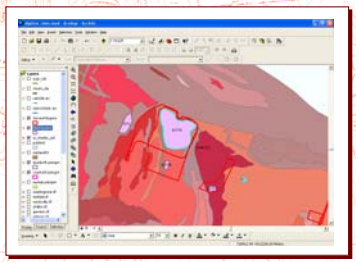
Usability of the Archaeology Geodatabase

In the past, it took many hours to sort through the boxes of data to locate the information needed for a new project. This geodatabase allows that to be accomplished in a fraction of the time.

- Areas of interest can be zoomed into and existing surveys and sites can be identified quickly to see the associated data
- Data can be queried and sorted by any related table attributes associated with the polygons
  - Specific year
  - Particular author



Information associated with surveys and sites can be quickly pulled up



Example of a query; sites found on a specific soil type in St. Charles County

- Ancillary data (geology, roads, soils, etc.) can be incorporated into the geodatabase for more advanced queries

Examples would be:
- Sites within a specific county that exists on a specific soil type
- Surveys within a pre-determined distance of a stream
- Sites that fall along the I-70 corridor